

**Lennunduse ja kosmonautika seeria.
Tekstiilklaaskiust eelimpregneeritud materjalid.
Katsemeetod vaigu- ja kiudainesisalduse
määramiseks ning kiudaine massi määramiseks
pinnaüksuse kohta.**

Aerospace series - Textile glass fibre
preimpregnates - Test method for the determination
of the resin and fibre content and mass of fibre per
unit area

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 2331:2000 sisaldab Euroopa standardi EN 2331:1993 ingliskeelset teksti.

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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Descriptors: Aircraft industry, glass-cloth, plastics, prepregged products, tests, determination of content, resins, incineration analysis, extraction

English version

**Aerospace series - Textile glass fibre
preimpregnates - Test method for the
determination of the resin and fibre content and
mass of fibre per unit area**

Série aéronautique - Préimprégnés de fibres de verre textile - Méthode d'essai pour la détermination des teneurs en résine et en fibres et de la masse surfacique des fibres

Luft- und Raumfahrt - Glasfilament-Prepreg - Prüfmethode zur Bestimmung des Harz- und Faseranteils sowie der flächenbezogenen Fasermasse

This European Standard was approved by CEN on 1993-03-01. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries and votes carried out in accordance with the rules of this Association, this Standard has successively received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 1993, and conflicting national standards shall be withdrawn at the latest by September 1993.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard :

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom

1 Scope

1.1 This standard specifies a method for determining the resin content (with or without volatiles), fibre content and mass of fibre per unit area of a textile glass fibre preimpregnate by ignition or solvent extraction, for aerospace use.

1.2 This standard does not give any directives necessary to meet the health and safety requirements. It is the responsibility of the user of this standard to adopt appropriate health and safety precautions.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- EN 2329 Aerospace series - Textile glass fibre preimpregnates - Test method for the determination of mass per unit area
- EN 2330 Aerospace series - Textile glass fibre preimpregnates - Test method for the determination of the content of volatile matter
- EN 2743 Aerospace series - Reinforced plastics - Standard procedures for conditioning prior to testing¹⁾

3 Definitions

A textile glass fibre preimpregnate with a thermosetting or thermoplastic resin is a material in the form of a synthetic resin impregnated textile glass fibre unidirectional sheet, tape or woven fabric and used for the manufacture of moulded components.

4 Principle

4.1 Ignition method

Determination of the difference in mass by means of weighing before and after removal of the resin by ignition at a temperature of 625 °C to constant mass.

If the material to be tested contains only glass and a resin which is completely combustible, the resin content is equal to the loss on ignition.

4.2 Solvent extraction method

Determination of the difference in mass by means of weighing before and after extraction of the resin with methyl-ethyl-ketone or other suitable solvent, as agreed between the purchaser and the supplier, to constant mass. The resin content is equal to the loss on solvent extraction. If the material to be tested contains fillers that lose mass at a temperature equal to or below 600 °C, only this method shall be employed. Two variants are possible :

4.2.1 a standard method of extraction using a Soxhlet ;

4.2.2 a faster method of extraction by soaking and decantation.

1) Published as AECMA pre-standard at the date of publication of this standard